

# 2 Hospital performance indicators

## Introduction

This chapter describes hospital performance indicators in terms of the average cost per separation, average salaries of staff employed, proportion of accredited hospitals, and sentinel procedures and the length of stay for the most common diagnoses. These indicators are determined under the framework developed by the National Health Ministers' Benchmarking Working Group (see NHMBWG 1999). The indicators have also been reported previously in *Australian Hospital Statistics 1998–99* and by the Steering Committee for the Review of Commonwealth/State Service Provision (SCRCSSP 2000). The indicators also draw on the casemix classification for acute admitted services. The data relate to the activity and resources of public institutions, and there are also some data presented for private hospitals and for private patients in public hospitals.

Those indicators that can be derived from data collected through the National Minimum Data Set for Institutional Health Care, established under the National Health Information Agreement process, have been included in this report. The principal elements for reviewing the performance of health care service delivery are efficiency (for which the principal indicator is cost per unit of output) and effectiveness (for which broad indicators are quality, appropriateness and access and equity). Indicators available for the current report that provide a measure of hospital efficiency include cost per casemix-adjusted separation in public acute hospitals; average salaries for medical and non-medical staff in public acute hospitals; and average length of stay for AN-DRGs with the highest number of separations. Only two effectiveness measures are available for reporting: the proportion of available beds in accredited hospitals, which is the only available measure of quality; and separation rates for selected procedures in public and private hospitals, which is a measure of the appropriateness of acute hospital service delivery. Access and equity indicators are not included in this report.

Improving data quality is a key strategy in the development of performance reporting in the hospital sector. Those indicators for which regular high quality data are available have benefited from collaborative data development and standardisation processes which health agencies have had in place under the National Health Information Agreement process. However, data for a substantial number of performance indicators required for reporting under the agreed framework remain unavailable for reporting. The effort required to implement a new performance indicator is not trivial in a national service delivery system as large and as complex as exists in the health services field. The National Health Information Agreement provides an established process for endorsing national data standards and for including new data elements in national minimum data sets. Through this process, the Institute is initiating developmental work for the future reporting of a wider range of hospital sector performance indicators.

## Cost per casemix-adjusted separation

Table 2.1 shows the total cost per casemix-adjusted separation for all States and Territories for 1998–99. At the national level, the cost per casemix-adjusted separation was \$2,611. A large portion of these costs is attributed to nursing salaries and medical labour costs; nationally these costs are \$706 and \$475 respectively, per casemix-adjusted separation.

This performance indicator is a measure of the average cost of providing care for an admitted patient (whether an overnight-stay patient or a same day patient), adjusted for the relative complexity of the patient's clinical condition and for the hospital services provided.

The current methodology includes all admitted patient separations and their associated costs. It is appropriate to include the 97.5% of separations which are acute in this calculation, as cost weights are available for each of the acute separations. However the 2.5% of separations which are not acute are also included, and as there are no cost weights for the non-acute separations, the overall cost per separation is biased.

To provide an estimate of the average casemix-adjusted cost of acute non-psychiatric patients both New South Wales and Victoria provided the Institute with estimates of the expenditure on acute non-psychiatric patients. The effect of restricting the analysis to only acute non-psychiatric patients was to reduce the cost per casemix-adjusted separation by 4.9% in New South Wales and 5.7% in Victoria (Table 2.2) The overall framework of cost analysis is discussed in Appendix 5.

The Institute hopes that all jurisdictions will soon be in a position to provide reasonably accurate data on the costs of treating acute admitted patients that are separated in a year. When all States and Territories are able to make this estimate, it will be possible to publish a cost per acute admitted separation in *Australian Hospital Statistics*. In addition if the States are able to provided cost weights, e.g. AN-SNAP weights for the admitted patient episodes which are not acute, then it will also be possible to publish a cost per palliative separation, a cost per rehabilitative separation, a cost per maintenance episode etc.

The pros and cons of changing the performance indicator from cost per total separation to cost per acute separation, the National Health Performance Committee will consider the timing of such a change, and the appropriate methodology to be used later this year.

This report also splits the hospitals further into peer groups (Appendix 11). This will aid the explanation of the variations in cost per casemix-adjusted separation at the jurisdiction level and enable comparison at a more appropriate level.

As more and more hospitals come into the National Hospital Cost Data Collection (NHCDC) it will be increasingly possible to use NHCDC data to refine the data that is provided for the Hospital Establishments collection so as to improve the performance indicators that come from the Hospital Establishments collection. For example, the nursing cost per casemix-adjusted separation is currently calculated by applying the overall inpatient fraction to nursing costs. It would be better to use NHCDC data to work out a nursing cost inpatient fraction. The nursing cost per casemix-adjusted separation calculated in this way would be better for benchmarking purposes.

A full description of the methodology used to derive the cost per casemix-adjusted separation figures is provided at Appendix 5. Users of the indicator should refer to the information in that appendix when interpreting the data. Note that the calculation of these figures is sensitive to a number of assumptions made to overcome deficiencies in available data. In particular:

- capital costs (including depreciation where available) are not included in numerators (see Tables 3.8 for available data on depreciation);
- recurrent expenditure on admitted patients (the numerator) is estimated in different ways by jurisdictions applying an inpatient fraction (see Glossary) to recurrent expenditure for admitted and not admitted patients combined; and
- adjustment of separations for case complexity ('casemix') is achieved using average cost weights within jurisdictions for acute episodes of care only, even though episodes other than acute are included in the separations data from which the denominator is constructed.

New South Wales, Victoria, the Australian Capital Territory and the Northern Territory were based on ICD-10-AM data and grouped to AR-DRG Version 4.1 while Queensland, South Australia Western Australia and Tasmania were based on ICD-9-CM and grouped to AR-DRG version 4.0. There are possibly slight differences between the ICD-9-CM States and the ICD-10-AM jurisdictions because of this use of the different ICD classifications, as discussed in Appendix 4. The 1998–99 AR-DRG version 4.0/4.1 combined cost weights (DHAC, unpublished, see Appendix 10) were applied to all jurisdictions.

## Average salaries and wages expenditure

Average salaries paid to public hospital staff by States and Territories are presented in Table 2.3. A number of jurisdictions were unable to report staffing numbers and salaries for the different nurse categories and, therefore, average nursing salaries have been produced as a single figure for this report. As noted elsewhere in this report (see Chapter 3), some States and Territories have difficulty in differentiating 'other personal care staff' and 'domestic and other staff'. Thus, some of the variation in average salaries reported within these categories may be a result of different reporting practices.

The data show variation in the distribution of labour costs among jurisdictions. States and Territories that reported the highest rates of staff resources did not necessarily report higher costs per casemix-adjusted separation (Table 2.1). The variations in the data are likely to be affected by different practices in 'outsourcing' services, and different arrangements for purchasing domestic and catering functions among jurisdictions. Where services are outsourced, the ratio of salary to non-salary costs will be reduced. The degree of outsourcing of high paid versus low paid staff will be a factor that affects the comparison of averages, for example; outsourcing the domestic services and retaining domestic service managers to oversee the activities of the contractors.

Salaries paid to nurses, overall, were relatively consistent nationally. Average salaries paid to salaried medical officers, in contrast, showed a marked variation across jurisdictions. Information on average payments to visiting medical officers for sessions and services in public hospitals is not available. The total number of medical practitioners who provided services in public hospitals is presented at Table 3.7.

## Hospital accreditation

Available administrative indicators of hospital quality include a number of accreditation, certification and award schemes. In particular the number of hospitals that have accreditation by the Australian Council on Healthcare Standards (ACHS) has been used by NHMBWG and SCRCSSP as a process indicator of quality. Table 2.4 presents a comparison of the percentage of hospitals accredited by the Australian Council on Healthcare Standards (ACHS 1999) between the public and private sectors. ACHS accreditation is awarded when hospitals demonstrate a continuing adherence to the ACHS quality assurance standards, and is regarded as one of the few indicators of hospital quality that is available nationally. Data for public hospitals are based on 1998–99 reports and data for private hospitals are based on 1997–98 reports and exclude the private free-standing day hospital facilities. Nationally, 48% (362) of all public hospitals were accredited, and accounted for 76% (40,839) of all public hospital beds reported for 1998–99. In the private sector, 79% (248) of acute hospitals were accredited, and accounted for 89% (21,070) of acute private hospital beds reported.

Comparison of ACHS accreditation rates shown in Table 2.4 among the States and Territories is limited because of the voluntary nature of a hospital's participation in the award scheme and because accreditation at any point in time does not assume a fixed or

continuing status for a hospital. In addition, ACHS accreditation of larger hospitals can substantially increase the proportion of beds that are accredited in a jurisdiction. A number of hospitals have been certified as International Organisation of Standards, ISO 9000 or ISO 9001 compliant, which is a different process to ACHS accreditation. There is no agreed national process to collect information on which hospitals are certified as ISO 9000 or ISO 9001 compliant. Victoria reports one small hospital was certified ISO 9000 compliant. Fifteen New South Wales public hospitals (629 beds), previously accredited by the ACHS, were working under either the Australian Quality Council or CHASP (Community Health Accreditation and Standards Program administered by the Australian Community Health Association) framework in 1998–99. If counted as accredited, 64% of New South Wales public hospitals (80% of beds) would have been accredited on 30 June 1999.

Although other organisations offer similar services, ACHS is the most widely used in Australia for hospitals and its accreditation status is reported in other national publications such as the *Report on Government Services 2000* (SCRCSSP 2000) and the *Third National Report on Health Sector Performance Indicators* (NHMBWG 1999).

Amalgamations of public hospital services may also affect the number of accredited hospitals, and thus the number of accredited available beds, over time (see Chapter 3 for a discussion of this issue).

## Separation rates for selected procedures

Separation rates for ‘sentinel’ procedures have been selected because of the frequency with which they are undertaken and because they are often elective and discretionary, and there are often treatment alternatives available (NHMBWG 1998). Use of particular procedures should therefore be interpreted with care as their relative importance can vary from place to place and over time. The additional procedures in the table were included after consultation with States and Territories. Users of this indicator should note the scope restrictions of the National Hospital Morbidity Database, in particular private hospitals in the Northern Territory and other hospitals as discussed in Chapter 1. This may result in under reporting of procedure rates for some of the procedures and in particular those procedures that are more likely to be performed in private and private freestanding hospitals, which will be under counted for some jurisdictions.

The ICD-9-CM and ICD-10-AM coded states are reported separately. The age- and sex-standardised separation rates that are presented take account of the different age and sex structures of the populations of the States and Territories within the two groups of jurisdictions. In Table 2.5, the standardised rate for each procedure for each State and Territory is accompanied by the standardised rate for all other jurisdictions using the same version of ICD excluding the reference State or Territory within the two groups of jurisdictions. For example, the rate for appendicectomy in Victoria was 1.49 separations per 1,000 population. The standardised rate for the other ICD-10-AM coded States and Territories combined was 1.39 per 1,000 population. Thus, Victoria had a separation rate for appendicectomy that was 6.9% higher than the rate for all the other ICD-10-AM coded jurisdictions combined. This difference was statistically significant (that is, there is a less than 1% chance that the difference between Victoria and the other ICD-10-AM coded jurisdictions occurred by chance).

A number of alterations to the table have been to account for conversion to ICD-10-AM. A subcommittee of the Australian Hospital Statistics Advisory Committee was formed to guide and assist the Institute in the review of Table 2.4. Appendix 6 discusses the problems introduced by the differences in coding frameworks in detail.

The mapping of the ICD-9-CM data to ICD-10-AM introduces a degree of uncertainty to the inter-jurisdictional comparisons. The table is therefore separated into the two groups of jurisdictions representing the different versions of the classifications of procedures. The

major ICD-9-CM to ICD-10-AM differences lay in the data on Arthroscopy and Diagnostic gastrointestinal endoscopies.

The codings do not appear to be problematic for Cholecystectomies, Coronary artery bypass grafts, Myringotomy with insertion of tube, Prostatectomies, Hip replacements and Knee replacements. There are some inconsistencies in the codes for Angioplasty, Hysterectomies, Tonsillectomies and Lens insertion but the impact on the statistics is expected to be minimal.

The table is based on State of residence and the effect of the different coding systems on patients being treated interstate, affects Northern Territory data most as it is an ICD-10-AM coded jurisdiction mainly importing services from South Australia and Queensland for a number of procedures. For example, the Northern Territory has inflated figures for arthroscopy due to the inclusion of the arthroscopic procedures performed in the ICD-9-CM coded states on Northern Territory residents.

The most common of the procedures were endoscopy, lens insertions and arthroscopic procedure separations. There was marked variation in rates among the jurisdictions for these (and other) procedures; some of this may reflect differences in the coverage of private and private free-standing day hospital facilities in the database. See Chapter 1 for a fuller description of the scope of the database.

Caesarean section was the fourth most common of the selected procedures. The rate was highest in South Australia and lowest in the Australian Capital Territory. The number of caesarean sections is dependent on the birth rate as well as the population thus it is useful to express the rate per birth as well as per population. The number of in-hospital births has been included for the first time this year as a second point of reference. There are completeness problems in terms of non-hospital births and comparability problems with age differences in the per birth rate of caesarean sections. Further information on caesarian sections compared to other delivery data can be found in the Australia's Mothers and Babies reports, which is based on the Midwives' collection (Day et al. 1999, [www.aihw.gov.au/npsu/ps9.pdf](http://www.aihw.gov.au/npsu/ps9.pdf)).

The coding differences between the ICD-9-CM and ICD-10-AM jurisdictions also show that there are significant differences that can occur due to problems in coding changeovers. For example: the arthroscopy data for Victoria seem overstated, being over double the apparent rate for the other ICD-10-AM coded jurisdictions. In 1997-98, when all jurisdictions were using ICD-9-CM, New South Wales had 5,450 and Victoria had 3,186 arthroscopies as principal procedures. This compares with the 29,656 and 25,535 separations respectively when procedures in all positions are counted (AIHW 1999a). Coding Standard 0023 relating to Laparoscopic/Arthroscopic/Endoscopic surgery states if a procedure is performed using one of the three approaches and there is no code provided that encompasses both the 'scopy' and the procedure (e.g. 51.23 laparoscopic cholecystectomy), then both procedures should be coded. The 'code approach as well' codes should not have been coded as principal procedure unless they were the only procedure. The Institute therefore thinks that there is probably a coding problem in Victoria as the data is consistent for New South Wales. The analysis of arthroscopic procedures for ICD-10-AM coded jurisdictions was divided into arthroscopy codes only and arthroscopic procedures (including arthroscopies) to reflect the two possible interpretations of the ICD-9-CM codes.

The Institute will review the entire methodology of this table as it fits into a broader analysis framework in conjunction with the National Health Performance Committee and the Australian Hospital Statistics Advisory Committee.

## Average lengths of stay for the top 10 AR-DRGs

Within the performance indicator framework for the hospital sector, the average length of stay for overnight separations for the most commonly reported AR-DRGs is an indicator of efficiency in service delivery. Table 2.6 presents data on the average length of stay for overnight separations for the ten AR-DRGs for which the highest number of overnight separations were reported for 1998–99. These data are not equivalent to the data presented in the tables in Chapter 10 as same day separations were excluded, as were separations with lengths of stay over 365 days.

The change of version between AN-DRG version 3.1 and AR-DRG version 4 has led to a number of changes, mostly due to the coding structure. It is important to note that the ICD-9-CM coded jurisdictions are grouped to AR-DRG version 4.0 and the ICD-10-AM jurisdictions are grouped to AR-DRG version 4.1 which leads to some comparability problems.

The table illustrates variation in the average length of stay for some AR-DRGs across the States and Territories and between the sectors. Of the top 10, AR-DRG F62B *Heart Failure and shock without catastrophic complication* had the longest average length of stay of 6.8 days nationally, with considerable variation between sectors and across jurisdictions, ranging from 9.8 days to 5.4 days. Following this, length of stay for AR-DRG J64B *Cellulitis (Age>59 without catastrophic or severe complications) or Age<60* was 4.41 and AR-DRG E62C *Respiratory infections and inflammations without complications* was 4.35 days nationally. The average length of stay for AR-DRG O60D *Vaginal delivery without complicating diagnosis* was 3.71 days 3.58 days in the public sector and 4.99 days in the private sector.

**Table 2.1: Cost<sup>(a)</sup> per casemix-adjusted separation, selected public acute hospitals,<sup>(b)</sup> States and Territories, 1998–99**

<b>Variable</b>	<b>NSW</b>	<b>Vic</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas<sup>(e)</sup></b>	<b>ACT</b>	<b>NT<sup>(d)</sup></b>	<b>Total</b>
Total separations ('000) <sup>(e)</sup>	1,213	944	674	342	332	74	59	55	3,692
Acute separations('000) <sup>(e)</sup>	1,185	917	647	338	327	73	58	54	3,599
Proportion of separations not acute %	2.3	2.8	4.0	1.3	1.5	1.6	1.8	1.0	2.5
Average cost weight <sup>(f)</sup>	1.03	1.00	0.99	0.95	1.00	1.02	0.99	0.78	1.00
Casemix-adjusted separations ('000) <sup>(g)</sup>	1,245	946	667	326	332	76	58	43	3,693
Total admitted patient days('000) <sup>(e)</sup>	4,668	3,549	2,324	1,242	1,142	273	216	191	13,605
Admitted patient days for acute patients('000) <sup>(e)</sup>	4,251	3,020	2,094	1,132	1,067	238	199	181	12,183
Proportion of bed days not acute %	8.9	14.9	9.9	8.9	6.6	12.5	7.9	5.2	10.5
Total recurrent expenditure (\$m)	4,441	3,118	1,980	1,240	983	254	272	183	12,472
Inpatient fraction <sup>(h)</sup>	0.75	0.72	0.79	0.78	0.80	0.74	0.70	0.77	0.75
Total admitted patient recurrent expenditure (\$m)	3,310	2,231	1,573	966	782	188	189	141	9,380
Public patient day proportion <sup>(i)</sup>	0.81	0.87	0.91	0.88	0.84	0.82	0.88	0.94	0.85
Newborn episodes with no qualified days('000)	57.5	38.1	29.4	14.7	10.6	0.0	3.0	2.6	156
<b>Data for excluded hospitals</b>									
Separations for excluded hospitals ('000) <sup>(b)(e)</sup>	61	26	35	15	24	6	1	0	161
Per cent of all separations %	4.8	2.7	4.9	4.3	6.7	8.0	1.3	..	4.2
Expenditure for excluded hospitals (\$m)	532	149	232	119	145	23	1.47	..	1,178
Inpatient fraction for excluded hospitals	0.78	0.50	0.70	0.77	0.89	n.a.	1.00	..	0.74
Unadjusted cost per separation	6,810	2,842	4,660	5,913	5,414	n.a.	1,856	..	5,411
<b>Average cost data for selected hospitals</b>									
Non-medical labour costs per casemix-adjusted separation (\$)									
Nursing	741	676	693	726	642	676	766	850	706
Diagnostic/allied health <sup>(k)</sup>	205	224	145	227	168	190	269	165	199
Administrative	193	193	166	250	189	180	243	231	194
Other staff	204	145	209	231	124	209	129	434	186
Superannuation <sup>(l)</sup>	129	107	136	153	122	151	231	128	128
<i>Total non-medical labour costs</i>	<i>1,472</i>	<i>1,345</i>	<i>1,349</i>	<i>1,587</i>	<i>1,245</i>	<i>1,406</i>	<i>1,638</i>	<i>1,808</i>	<i>1,413</i>

(continued)

**Table 2.1: (continued): Cost<sup>(a)</sup> per casemix-adjusted separation, selected public acute hospitals,<sup>(b)</sup> States and Territories, 1998–99**

Variable	NSW	Vic	Qld	WA	SA	Tas <sup>(c)</sup>	ACT	NT <sup>(c)</sup>	Total
Other recurrent costs per casemix-adjusted separation (\$)									
Domestic services	67	67	74	79	72	69	120	160	72
Repairs/maintenance	61	56	48	91	94	75	85	70	64
Medical supplies <sup>(k)</sup>	159	187	243	201	161	192	284	154	187
Drug supplies	137	118	142	155	119	128	163	165	133
Food supplies	33	28	22	22	20	32	40	32	28
Administration	152	130	113	169	138	80	192	221	140
Other	133	66	14	186	104	128	175	239	99
<i>Total other recurrent costs</i>	<i>742</i>	<i>652</i>	<i>656</i>	<i>903</i>	<i>708</i>	<i>704</i>	<i>1,059</i>	<i>1,041</i>	<i>723</i>
<b>Total excluding medical labour costs</b>	<b>2,214</b>	<b>1,997</b>	<b>2,005</b>	<b>2,490</b>	<b>1,953</b>	<b>2,110</b>	<b>2,697</b>	<b>2,849</b>	<b>2,136</b>
Medical labour costs per casemix-adjusted separation (\$)									
Public patients									
Salaried/sessional staff	280	299	292	321	262	281	348	376	291
VMO payments	165	61	59	153	141	94	208	45	114
Private patients (estimated) <sup>(l)</sup>	107	56	34	62	74	83	73	27	70
<i>Total medical labour costs</i>	<i>552</i>	<i>416</i>	<i>385</i>	<i>536</i>	<i>477</i>	<i>458</i>	<i>629</i>	<i>448</i>	<i>475</i>
<b>Total cost per casemix adjusted separation<sup>(q)</sup></b>	<b>2,766</b>	<b>2,413</b>	<b>2,390</b>	<b>3,026</b>	<b>2,430</b>	<b>2,568</b>	<b>3,326</b>	<b>3,297</b>	<b>2,611</b>

(a) Excluding depreciation

(b) Psychiatric hospitals, drug and alcohol services, mothercraft hospitals, Unpeered and other, hospices, rehabilitation facilities Small non-acute and multi-purpose services excluded from this table.

(c) Tasmania is the only jurisdiction with a significant payroll tax burden. As a result, payroll tax has been estimated at 6.7% of salary plus superannuation and removed from the above. Consequently the above data do not balance with Table 3.8.

(d) These figures should be interpreted in conjunction with the consideration of cost disabilities associated with hospital service delivery in the Northern Territory (see Appendix 5).

(e) From the National Hospital Morbidity Database, including same day separations and newborns with qualified days.

(f) Average cost weight from the National Hospital Morbidity Database, based on acute and unspecified separations and newborn episodes of care with qualified days, using the 1998–99 AR-DRG v 4.0/4.1 combined cost weights (DHAC, unpublished). New South Wales, Victoria, the Australian Capital Territory and the Northern Territory report in ICD-10-AM grouped to AR-DRG v4.1. Queensland, Western Australia, South Australia and Tasmania report in ICD-9-CM grouped to AR-DRG v4.0. There are possibly slight differences because of this use of the different ICD classifications (see Appendix 4.)

(g) Casemix-adjusted separations is the product of Total separations and Average cost weight.

(h) Inpatient fractions have been estimated using the HASAC method for 3 very small excluded hospitals in Queensland, 1 small selected and 6 excluded hospitals in New South Wales, 1 excluded hospital in the Australian Capital Territory, 1 small selected and 3 small excluded hospitals in Victoria, 5 small excluded hospitals in South Australia, 1 small selected and 2 small excluded hospitals in Western Australia.

(i) Eligible public patient days as a proportion of total patient days, excluding newborns with no qualified days.

(j) In the Northern Territory the major superannuation scheme is funded by Treasury—hospitals make no contribution. The superannuation for this jurisdiction was estimated using the average of the other States and Territories. Consequently, the above data do not balance with Table 3.8.

(k) Queensland pathology services are now being purchased from the statewide pathology service rather than being provided by each hospitals employees

(l) Estimated private patient medical costs calculated as the sum of salary/sessional and VMO payments divided by the number of public patient days multiplied by the number of private patient days. This is a notional estimate of the medical costs for all non-public patients, including private, compensable and ineligible.

. . not applicable

n.a. not available



**Table 2.2: Cost per acute casemix-adjusted separation, selected public acute hospitals, excluding mental health programs <sup>(a)</sup> New South Wales and Victoria, 1998–99**

Variable	NSW	Vic
Total separations ('000) <sup>(b)</sup>	1,213	944
Acute separations excluding psychiatric unit separations ('000) <sup>(d)</sup>	1,166	897
Proportion of separations not acute %	3.9	4.9
Average cost weight <sup>(c)</sup>	1.02	0.98
Casemix-adjusted acute non-psychiatric separations ('000)	1,190	884
Total recurrent expenditure (\$m)	4,441	3,118
Acute non-psychiatric Inpatient fraction <sup>(d)</sup>	0.68	0.63
Total acute patient(excluding Mental health program) recurrent expenditure (\$m)	3,007	1,956
Public patient day proportion for acute non-psychiatric patients <sup>(e)</sup>	0.80	0.86
<b>Average cost per casemix-adjusted separation for selected hospitals from Table 2.1</b>		
Cost per casemix-adjusted separation	2,766	2,413
Difference from cost per acute non-psychiatric separation	-4.9%	-5.7%
<b>Average cost per acute non-psychiatric separation data for selected hospitals</b>		
Non-medical labour costs per acute non-psychiatric casemix-adjusted separation (\$)		
Nursing	704	585
Diagnostic/allied health	195	185
Administrative	184	181
Other staff	194	133
Superannuation	123	103
<i>Total non-medical labour costs</i>	<i>1,400</i>	<i>1,187</i>
Other recurrent costs per acute non-psychiatric casemix-adjusted separation (\$)		
Domestic services	63	68
Repairs/maintenance	58	58
Medical supplies	151	202
Drug supplies	130	128
Food supplies	31	24
Administration	145	105
Other	126	55
<i>Total other recurrent costs</i>	<i>704</i>	<i>640</i>
<b>Total excluding medical labour costs</b>	<b>2,104</b>	<b>1,827</b>
Medical labour costs per acute non-psychiatric casemix-adjusted separation (\$)		
Public patients		
Salaried/sessional staff	266	312
VMO payments	157	74
Private patients (estimated) <sup>(f)</sup>	104	62
<i>Total medical labour costs</i>	<i>527</i>	<i>448</i>
<b>Total cost per acute non-psychiatric casemix-adjusted separation</b>	<b>2,631</b>	<b>2,275</b>

(a) Excludes psychiatric, mothercraft, hospices, small non-acute, other not acute, un-peered and other hospitals, rehabilitation facilities, and multi-purpose services.

(b) From the National Hospital Morbidity Database, including same day separations and newborns with qualified days. Excludes patients with total days of psychiatric care equal to the total length of stay.

(c) Average cost weight from the National Hospital Morbidity Database, based on acute and unspecified separations and newborn episodes of care with qualified days, using the 1998–99 revised AR-DRG version 4.1/4.0 combined cost weights (DHAC, unpublished). Excludes patients with total days of psychiatric care equal to the total length of stay.

(d) Proportion of total expenditure relating to acute non-psychiatric admitted patients.

(e) Eligible public patient days as a proportion of total patient days, excluding newborns with no qualified days, non-acute patients and patients with total days of psychiatric care equal to the total length of stay.

(f) Estimated private patient medical costs calculated as the sum of salary/sessional and VMO payments divided by the number of public patient days multiplied by the number of private patient days. This is a notional estimate of the medical costs for all non public patients including private, compensable and ineligible patients.

. . not applicable

n.a. not available

**Table 2.3: Average salary (\$), full time equivalent staff, <sup>(a)</sup> public acute and psychiatric hospitals, States and Territories, 1998–99**

Staffing category	NSW <sup>(b)</sup>	Vic <sup>(c)</sup>	Qld	WA	SA <sup>(b)</sup>	Tas <sup>(b,d)</sup>	ACT	NT	Total
Salaried medical officers	87,423	105,375	79,223	94,704	76,988	96,340	103,892	99,196	90,205
Nurses	51,358	53,566	46,970	46,520	44,965	47,220	47,704	48,964	49,811
Other personal care staff	n.a.	24,746	32,874	27,566	n.a.	n.a.	31,872	39,033	29,357
Diagnostic & health professionals	46,802	48,553	46,509	45,396	41,502	55,337	49,110	64,079	46,968
Administrative & clerical staff	42,398	41,101	34,970	36,554	32,849	46,301	43,670	41,527	39,273
Domestic & other staff	34,490	36,276	32,332	32,037	27,480	34,755	32,716	40,505	33,641
<b>Total staff</b>	<b>49,641</b>	<b>53,041</b>	<b>45,549</b>	<b>45,646</b>	<b>42,889</b>	<b>47,579</b>	<b>50,911</b>	<b>51,323</b>	<b>48,670</b>

(a) Where average full time equivalent staff numbers were not available, staff numbers at 30 June 1998 were used.

(b) *Other personal care staff* are included in *Diagnostic & health professionals* and *Domestic & other staff*.

(c) For Victoria different sources are used for FTE and salaries and FTEs may be slightly understated.

(d) For Tasmania staff numbers were only available for the 3 major hospitals which accounted for 92% of total separations. Staff numbers for the remaining 22 hospitals were not available. Data are for those 3 hospitals only.

n.a. not available.

**Table 2.4: Number of hospitals<sup>(a)</sup> and available beds<sup>(b)</sup> by sector and ACHS accreditation status,<sup>(c)</sup> States and Territories<sup>(d)</sup>, 1998–99**

Hospital accreditation	NSW <sup>(d)</sup>	Vic <sup>(e)</sup>	Qld	WA	SA <sup>(f)</sup>	Tas <sup>(g)</sup>	ACT <sup>(d)</sup>	NT <sup>(f)</sup>	Total
<b>Public hospitals</b>									
Accredited hospitals	125	98	40	34	57	4	3	1	362
Non-accredited hospitals	93	44	148	60	23	21	0	4	393
Hospitals accredited (%)	57	69	21	36	71	16	100	20	48
<i>Total public hospitals</i>	<i>218</i>	<i>142</i>	<i>188</i>	<i>94</i>	<i>80</i>	<i>25</i>	<i>3</i>	<i>5</i>	<i>755</i>
Accredited beds	14,447	10,190	7,011	3,365	3,957	861	710	297	40,839
Non-accredited beds	4,309	1,448	3,633	1,971	1,138	278	0	270	13,046
Beds accredited (%)	77	88	66	63	78	76	100	52	76
<i>Total available beds for admitted patients</i>	<i>18,756</i>	<i>11,638</i>	<i>10,644</i>	<i>5,336</i>	<i>5,095</i>	<i>1,139</i>	<i>710</i>	<i>567</i>	<i>53,885</i>
<b>Private hospitals<sup>(h)</sup></b>									
Accredited hospitals	81	73	42	18	26	8	n.p.	n.p.	248
Non-accredited hospitals	9	22	10	10	12	1	n.p.	n.p.	64
Hospitals accredited (%)	90	77	81	64	68	89	n.p.	n.p.	79
<i>Total private hospitals</i>	<i>90</i>	<i>95</i>	<i>52</i>	<i>28</i>	<i>38</i>	<i>9</i>	<i>n.p.</i>	<i>n.p.</i>	<i>312</i>
Accredited beds	6,245	5,506	4,626	2,017	n.p.	n.p.	n.p.	n.p.	21,070
Non-accredited beds	283	851	364	877	n.p.	n.p.	n.p.	n.p.	2,676
Beds accredited (%)	96	87	93	70	n.p.	n.p.	n.p.	n.p.	89
<i>Total available beds for admitted patients</i>	<i>6,528</i>	<i>6,357</i>	<i>4,990</i>	<i>2,894</i>	<i>2,199</i>	<i>778</i>	<i>n.p.</i>	<i>n.p.</i>	<i>23,746</i>
<b>All hospitals<sup>(h)</sup></b>									
Accredited hospitals	206	171	82	52	83	12	n.p.	n.p.	610
Non-accredited hospitals	102	66	158	70	35	22	n.p.	n.p.	457
Hospitals accredited (%)	67	72	34	43	70	35	n.p.	n.p.	57
<i>Total hospitals</i>	<i>308</i>	<i>237</i>	<i>240</i>	<i>122</i>	<i>118</i>	<i>34</i>	<i>n.p.</i>	<i>n.p.</i>	<i>1,067</i>
Accredited beds	20,692	15,696	11,637	5,382	n.p.	n.p.	n.p.	n.p.	61,909
Non-accredited beds	4,592	2,299	3,997	2,848	n.p.	n.p.	n.p.	n.p.	15,722
Beds accredited (%)	82	87	74	65	n.p.	n.p.	n.p.	n.p.	80
<i>Total available beds for admitted patients</i>	<i>25,284</i>	<i>17,995</i>	<i>15,634</i>	<i>8,230</i>	<i>7,294</i>	<i>1,917</i>	<i>n.p.</i>	<i>n.p.</i>	<i>77,631</i>

(a) Apparent differences in the number of hospitals reported are, in many instances, caused more by changes in administrative or reporting arrangements than by actual differences in the number of buildings.

(b) Where average available beds for the year were not available, bed numbers at 30 June 1998 were used.

(c) ACHS Accreditation status at 30 June 1999 for public hospitals. One small Victorian public hospital was ISO 9000 certified and 15 New South Wales public hospitals (629 beds) were working under either the Australian Quality Council or Community Health Accreditation and Standards Program framework in 1998–99.

(d) Australian Capital Territory private hospital data are included with New South Wales.

(e) In Victoria two major public hospitals with a total of 857 beds had lapsed accreditation on 30 June 1999 but were re-accredited shortly afterwards and are counted as accredited in this table.

(f) Northern Territory private hospital data are included with South Australia. Private hospital accredited beds and non-accredited beds not printed separately but included in total.

(g) Tasmanian private hospital accredited and non-accredited beds not printed separately but included in total.

(h) Excludes private free-standing day hospital facilities.

n.p. not published.

Note: Private hospital data are provided from the Australian Bureau of Statistics Private Health Establishments Collection and accreditation data are provided by the Australian Council on Healthcare Standards.

**Table 2.5: Separation statistics for selected procedures<sup>(a)</sup> by State or Territory of usual residence, all hospitals,<sup>(b)</sup> States and Territories, 1998–99**

Procedure					
<b>Appendicectomy ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	8,477	6,710	449	241	15,877
Separations within State of residence (%)	97	98	95	96	
Separation rate <sup>(d)</sup>	1.40	1.49	1.44	1.21	1.43
Separation rate <sup>(d)</sup> for other States	1.47	1.39	1.43	1.43	
Difference, State/Territory & other rate (%)	-5.1	6.9	0.5	-15.5	
Significance of difference	**	**	–	**	
<b>Appendicectomy ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	5,027	2,939	1,874	580	10,420
Separations within State of residence (%)	99	99	99	99	
Separation rate <sup>(d)</sup>	1.47	1.61	1.33	1.30	1.47
Separation rate <sup>(d)</sup> for other States	1.47	1.42	1.51	1.48	
Difference, State/Territory & other rate (%)	0.4	13.7	-11.8	-12.7	
Significance of difference	–	**	**	**	
<b>Coronary artery bypass graft ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	6,927	4,416	168	61	11,572
Separations within State of residence (%)	93	99	83	0	
Separation rate <sup>(d)</sup>	0.99	0.86	0.67	0.56	0.93
Separation rate <sup>(d)</sup> for other States	0.85	0.97	0.93	0.93	
Difference, State/Territory & other rate (%)	16.0	-11.1	-28.0	-40.1	
Significance of difference	**	**	n.a.	**	
<b>Coronary artery bypass graft ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	3,115	1,194	1,178	338	5,825
Separations within State of residence (%)	99	100	99	98	
Separation rate <sup>(d)</sup>	0.88	0.66	0.67	0.63	0.76
Separation rate <sup>(d)</sup> for other States	0.66	0.79	0.79	0.77	
Difference, State/Territory & other rate (%)	32.9	-16.3	-15.5	-18.6	
Significance of difference	**	**	**	**	
<b>Angioplasty ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	6,294	5,523	121	89	12,027
Separations within State of residence (%)	95	99	17	0	
Separation rate <sup>(d)</sup>	0.90	1.08	0.43	0.76	0.96
Separation rate <sup>(d)</sup> for other States	1.05	0.88	0.98	0.97	
Difference, State/Territory & other rate (%)	-13.8	22.6	-56.3	-21.8	
Significance of difference	**	**	n.a.	*	
<b>Angioplasty ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	2,446	1,753	1,497	544	6,240
Separations within State of residence (%)	99	99	99	98	
Separation rate <sup>(d)</sup>	0.68	0.97	0.86	1.02	0.81
Separation rate <sup>(d)</sup> for other States	0.93	0.77	0.80	0.80	
Difference, State/Territory & other rate (%)	-26.5	26.3	8.3	28.4	
Significance of difference	**	**	**	**	
<b>Caesarean section ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	17,178	13,134	757	616	31,685
Separations within State of residence (%)	97	100	98	97	
In-hospital births	85,996	59,757	3,978	2,695	152,426
Separations per 100 in-hospital births	20	22	19	23	21
Separation rate <sup>(d)</sup>	2.86	2.91	2.42	2.85	2.87
Separation rate <sup>(d)</sup> for other States	2.88	2.83	2.88	2.87	
Difference, State/Territory & other rate (%)	-0.8	2.8	-15.8	-0.7	
Significance of difference	–	*	**	–	
<b>Caesarean section ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	10,976	5,846	4,528	1,194	22,544
Separations within State of residence (%)	99	100	100	99	
In-hospital births	47,665	24,260	18,313	5,713	95,951
Separations per 100 in-hospital births	23	24	25	21	23
Separation rate <sup>(d)</sup>	3.33	3.28	3.38	2.97	3.31
Separation rate <sup>(d)</sup> for other States	3.28	3.32	3.29	3.33	
Difference, State/Territory & other rate (%)	1.7	-1.1	2.8	-10.7	
Significance of difference	–	–	–	**	

(continued)

**Table 2.5:(continued) Separation statistics for selected procedures<sup>(a)</sup> by State or Territory of usual residence, all hospitals,<sup>(b)</sup> States and Territories, 1998-99**

<b>Procedure</b>					
<b>Cholecystectomy ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	15,521	10,795	472	210	26,998
Separations within State of residence (%)	97	99	95	93	
Separation rate <sup>(d)</sup>	2.29	2.18	1.57	1.30	2.22
Separation rate <sup>(d)</sup> for other States	2.12	2.24	2.23	2.23	
Difference, State/Territory & other rate (%)	8.1	-2.9	-29.5	-41.7	
Significance of difference	**	*	n.a.	n.a.	
<b>Cholecystectomy ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	8,306	3,910	3,800	899	16,915
Separations within State of residence (%)	99	100	100	98	
Separation rate <sup>(d)</sup>	2.32	2.10	2.34	1.81	2.23
Separation rate <sup>(d)</sup> for other States	2.16	2.28	2.21	2.26	
Difference, State/Territory & other rate (%)	7.7	-7.8	5.8	-20.1	
Significance of difference	**	**	**	**	
<b>Diagnostic gastrointestinal endoscopy ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	162,580	125,069	3,378	1,935	292,962
Separations within State of residence (%)	98	99	95	90	
Separation rate <sup>(d)</sup>	23.61	24.83	11.74	12.88	23.71
Separation rate <sup>(d)</sup> for other States	23.83	22.94	24.00	23.83	
Difference, State/Territory & other rate (%)	-0.9	8.2	-51.1	-46.0	
Significance of difference	*	**	n.a.	n.a.	
<b>Diagnostic gastrointestinal endoscopy ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	98,362	43,643	36,766	10,662	189,433
Separations within State of residence (%)	99	100	100	99	
Separation rate <sup>(d)</sup>	27.29	23.41	21.72	20.52	24.67
Separation rate <sup>(d)</sup> for other States	22.36	25.07	25.50	24.97	
Difference, State/Territory & other rate (%)	22.0	-6.6	-14.8	-17.8	
Significance of difference	**	**	**	**	
<b>Hip replacement ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	7,291	5,728	357	36	13,412
Separations within State of residence (%)	94	99	94	75	
Separation rate <sup>(d)</sup>	1.00	1.08	1.46	0.49	1.04
Separation rate <sup>(d)</sup> for other States	1.08	1.01	1.03	1.04	
Difference, State/Territory & other rate (%)	-7.5	6.4	42.2	-52.9	
Significance of difference	**	**	**	**	
<b>Hip replacement ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	3,341	2,092	2,147	679	8,259
Separations within State of residence (%)	99	100	99	99	
Separation rate <sup>(d)</sup>	0.92	1.16	1.13	1.22	1.05
Separation rate <sup>(d)</sup> for other States	1.16	1.01	1.02	1.03	
Difference, State/Territory & other rate (%)	-20.6	14.8	11.1	18.4	
Significance of difference	**	**	**	**	
<b>Hysterectomy ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	10,866	8,054	511	138	19,569
Separations within State of residence (%)	96	100	94	91	
Separation rate <sup>(d)</sup>	1.58	1.59	1.61	0.77	1.57
Separation rate <sup>(d)</sup> for other States	1.56	1.56	1.57	1.58	
Difference, State/Territory & other rate (%)	1.1	2.0	2.4	-51.4	
Significance of difference	-	-	-	n.a.	
<b>Hysterectomy ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	6,384	3,676	3,161	890	14,111
Separations within State of residence (%)	99	100	100	100	
Separation rate <sup>(d)</sup>	1.73	1.88	1.92	1.75	1.81
Separation rate <sup>(d)</sup> for other States	1.88	1.78	1.78	1.81	
Difference, State/Territory & other rate (%)	-8.2	5.5	8.0	-3.3	
Significance of difference	**	**	**	-	

(continued)

**Table 2.5:(continued) Separation statistics for selected procedures<sup>(a)</sup> by State or Territory of usual residence, all hospitals,<sup>(b)</sup> States and Territories, 1998-99**

<b>Procedure</b>					
<b>Lens insertion ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	44,547	26,455	796	340	72,138
Separations within State of residence (%)	98	99	93	87	
Separation rate <sup>(d)</sup>	6.02	4.89	3.45	4.25	5.50
Separation rate <sup>(d)</sup> for other States	4.83	5.93	5.54	5.50	
Difference, State/Territory & other rate (%)	24.4	-17.6	-37.8	-22.8	
Significance of difference	**	**	n.a.	**	
<b>Lens insertion ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	23,072	11,357	8,027	2,249	44,705
Separations within State of residence (%)	98	100	100	99	
Separation rate <sup>(d)</sup>	6.37	6.35	4.11	3.88	5.64
Separation rate <sup>(d)</sup> for other States	5.02	5.43	6.13	5.78	
Difference, State/Territory & other rate (%)	26.9	16.9	-32.9	-32.9	
Significance of difference	**	**	**	**	
<b>Tonsillectomy ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	11,206	8,782	426	122	20,536
Separations within State of residence (%)	97	99	99	84	
Separation rate <sup>(d)</sup>	1.88	2.03	1.40	0.55	1.90
Separation rate <sup>(d)</sup> for other States	1.92	1.82	1.92	1.93	
Difference, State/Territory & other rate (%)	-2.1	11.9	-26.9	-71.6	
Significance of difference	-	**	**	n.a.	
<b>Tonsillectomy ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	5,937	3,372	3,191	477	12,977
Separations within State of residence (%)	99	100	100	99	
Separation rate <sup>(d)</sup>	1.77	1.89	2.39	1.07	1.87
Separation rate <sup>(d)</sup> for other States	1.97	1.87	1.75	1.93	
Difference, State/Territory & other rate (%)	-10.4	0.9	36.4	-44.6	
Significance of difference	**	-	**	**	
<b>Myringotomy ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	10,344	10,058	431	130	20,963
Separations within State of residence (%)	96	99	98	89	
Separation rate <sup>(d)</sup>	1.71	2.31	1.47	0.59	1.92
Separation rate <sup>(d)</sup> for other States	2.18	1.66	1.93	1.94	
Difference, State/Territory & other rate (%)	-21.6	39.4	-23.7	-69.6	
Significance of difference	**	**	**	n.a.	
<b>Myringotomy ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	5,974	3,860	4,440	604	14,878
Separations within State of residence (%)	99	100	100	99	
Separation rate <sup>(d)</sup>	1.78	2.18	3.33	1.33	2.15
Separation rate <sup>(d)</sup> for other States	2.50	2.14	1.87	2.21	
Difference, State/Territory & other rate (%)	-29.1	1.8	78.0	-39.7	
Significance of difference	**	-	**	**	
<b>Knee replacement ICD-10-AM States</b>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
Separations <sup>(c)</sup>	7,367	3,569	312	35	11,283
Separations within State of residence (%)	95	99	90	54	
Separation rate <sup>(d)</sup>	1.04	0.69	1.32	0.39	0.90
Separation rate <sup>(d)</sup> for other States	0.71	1.04	0.89	0.90	
Difference, State/Territory & other rate (%)	46.3	-34.2	49.0	-56.1	
Significance of difference	**	**	**	**	
<b>Knee replacement ICD-9-CM States</b>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
Separations <sup>(c)</sup>	3,195	1,854	1,769	432	7,250
Separations within State of residence (%)	99	99	99	98	
Separation rate <sup>(d)</sup>	0.91	1.06	0.97	0.79	0.95
Separation rate <sup>(d)</sup> for other States	0.98	0.92	0.95	0.96	
Difference, State/Territory & other rate (%)	-7.0	15.7	2.8	-18.0	
Significance of difference	**	**	-	**	

(continued)

**Table 2.5:(continued) Separation statistics for selected procedures<sup>(a)</sup> by State or Territory of usual residence, all hospitals,<sup>(b)</sup> States and Territories, 1998–99**

Procedure					
<b>Prostatectomy ICD-10-AM States</b>					
Separations <sup>(c)</sup>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
	8,085	6,990	333	45	15,453
Separations within State of residence (%)	95	98	96	71	
Separation rate <sup>(d)</sup>	1.14	1.34	1.42	0.58	1.22
Separation rate <sup>(d)</sup> for other States	1.33	1.14	1.22	1.23	
Difference, State/Territory & other rate (%)	-14.5	17.2	16.3	-52.5	
Significance of difference	**	**	*	**	
<b>Prostatectomy ICD-9-CM States</b>					
Separations <sup>(c)</sup>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
	3,529	1,886	1,865	624	7,904
Separations within State of residence (%)	99	100	100	100	
Separation rate <sup>(d)</sup>	1.00	1.08	1.02	1.14	1.03
Separation rate <sup>(d)</sup> for other States	1.06	1.01	1.03	1.02	
Difference, State/Territory & other rate (%)	-6.0	6.0	-1.3	11.8	
Significance of difference	**	*	–	*	
<b>Arthroscopy ICD-10-AM States</b>					
Separations <sup>(c)</sup>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
	5,277	8,983	208	287	14,755
Separations within State of residence (%)	90	98	84	16	
Separation rate <sup>(d)</sup>	0.82	1.88	0.66	1.52	1.26
Separation rate <sup>(d)</sup> for other States	1.79	0.83	1.27	1.25	
Difference, State/Territory & other rate (%)	-54.3	125.6	-48.0	21.5	
Significance of difference	n.a.	n.a.	n.a.	n.a.	
<b>Arthroscopy ICD-9-CM States</b>					
Separations <sup>(c)</sup>	<b>Qld</b>	<b>WA</b>	<b>SA</b>	<b>Tas</b>	<b>Total</b>
	14,415	10,340	12,187	2,241	39,183
Separations within State of residence (%)	99	100	100	97	
Separation rate <sup>(d)</sup>	4.09	5.53	7.92	4.75	5.28
Separation rate <sup>(d)</sup> for other States	6.36	5.20	4.59	5.32	
Difference, State/Territory & other rate (%)	-35.7	6.3	72.5	-10.8	
Significance of difference	**	**	**	**	
<b>Arthroscopic procedures ICD-10-AM States (includes arthroscopies)</b>					
Separations <sup>(c)</sup>	<b>NSW</b>	<b>Vic</b>	<b>ACT</b>	<b>NT</b>	<b>Total</b>
	32,144	25,372	1,313	601	59,430
Separations within State of residence (%)	96	98	89	55	
Separation rate <sup>(d)</sup>	4.92	5.29	4.19	3.15	5.02
Separation rate <sup>(d)</sup> for other States	5.15	4.84	5.05	5.05	
Difference, State/Territory & other rate (%)	-4.6	9.2	-16.9	-37.5	
Significance of difference	**	**	n.a.	n.a.	

(a) The procedures are defined using ICD-9-CM and ICD-10-AM codes in Appendix 6. Procedures include National Health Minister's Benchmarking Working Group sentinel procedures and additional procedures requested by States and Territories.

(b) Excludes private hospitals in the Northern Territory and other hospitals as discussed in chapter 1. This may result in under reporting of procedure rates for some of the above procedures.

(c) Excludes multiple procedures during the same separation within the same sentinel group.

(d) Rate per 1,000 population was directly age- and sex-standardised to the Australian population at 30 June 1991.

– not significant, \* significant at 5%, \*\* significant at 1%.

**Table 2.6: Average length of stay (days) for the 10 AR-DRGs (version 4<sup>(a)</sup>) with the highest number of separations, <sup>(b)</sup> excluding same day separations, by hospital sector, States and Territories, 1998–99**

AR-DRG	Hospital sector	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
O60D Vaginal Delivery W/O Complicating Diagnosis	Public	3.21	3.28	2.81	3.30	3.13	3.27	3.01	3.77
	Private	4.93	5.15	5.00	4.88	5.00	4.25	5.62	n.a.
	<i>Total</i>	<i>3.56</i>	<i>3.72</i>	<i>3.33</i>	<i>3.78</i>	<i>3.57</i>	<i>3.62</i>	<i>3.62</i>	<i>3.77</i>
F62B Heart Failure and Shock W/O Catastrophic CC	Public	6.93	6.04	5.93	5.88	6.14	7.12	6.50	5.37
	Private	9.84	8.57	8.08	7.79	7.59	7.38	9.44	n.a.
	<i>Total</i>	<i>7.28</i>	<i>6.69</i>	<i>6.59</i>	<i>6.30</i>	<i>6.49</i>	<i>7.20</i>	<i>6.97</i>	<i>5.37</i>
J64B Cellulitis (Age>59 W/O Catastrophic or Severe CC) or Age<60	Public	4.58	4.63	3.68	3.81	3.79	4.28	5.13	4.45
	Private	5.48	5.91	5.71	4.68	5.57	5.12	3.79	n.a.
	<i>Total</i>	<i>4.66</i>	<i>4.85</i>	<i>3.98</i>	<i>3.95</i>	<i>4.10</i>	<i>4.56</i>	<i>5.06</i>	<i>4.45</i>
O65B Other Antenatal Admission W Moderate or No Complicating Diagnosis	Public	2.42	2.34	2.08	2.38	2.22	2.12	2.84	2.49
	Private	3.05	2.95	2.38	2.44	2.37	2.03	3.31	n.a.
	<i>Total</i>	<i>2.51</i>	<i>2.44</i>	<i>2.13</i>	<i>2.40</i>	<i>2.24</i>	<i>2.10</i>	<i>2.95</i>	<i>2.49</i>
E62C Respiratory Infectn/Inflammations W/O CC	Public	4.32	4.03	3.83	3.64	3.98	4.45	3.89	4.49
	Private	5.77	6.19	5.47	5.10	6.17	5.42	5.81	n.a.
	<i>Total</i>	<i>4.45</i>	<i>4.47</i>	<i>4.21</i>	<i>3.90</i>	<i>4.34</i>	<i>4.72</i>	<i>4.02</i>	<i>4.49</i>
F72B Unstable Angina W/O Catastrophic or Severe CC	Public	3.84	3.26	3.58	2.77	3.47	3.97	3.58	3.93
	Private	4.51	4.16	4.01	3.06	3.57	3.54	9.80	n.a.
	<i>Total</i>	<i>3.89</i>	<i>3.40</i>	<i>3.65</i>	<i>2.86</i>	<i>3.48</i>	<i>3.88</i>	<i>3.79</i>	<i>3.93</i>
I18Z Knee Procedures	Public	2.99	2.31	1.85	2.12	2.01	2.00	2.51	3.54
	Private	1.79	1.84	1.85	1.84	1.88	1.53	1.55	n.a.
	<i>Total</i>	<i>2.09</i>	<i>1.99</i>	<i>1.85</i>	<i>1.91</i>	<i>1.91</i>	<i>1.59</i>	<i>1.88</i>	<i>3.54</i>
E69C Bronchitis and Asthma Age<50 W/O CC	Public	2.17	1.97	2.19	2.16	2.25	2.18	2.37	2.37
	Private	2.48	2.61	2.57	2.25	3.15	2.67	2.33	n.a.
	<i>Total</i>	<i>2.18</i>	<i>2.01</i>	<i>2.24</i>	<i>2.18</i>	<i>2.31</i>	<i>2.27</i>	<i>2.37</i>	<i>2.37</i>
G67B Oesophagitis, Gastroent & Misc Digestive System Disorders Age>9 W/O Cat/Sev CC	Public	2.93	2.67	2.36	2.52	2.55	3.30	2.96	2.88
	Private	4.33	4.08	3.71	3.64	3.65	3.55	3.94	n.a.
	<i>Total</i>	<i>3.07</i>	<i>2.99</i>	<i>2.76</i>	<i>2.81</i>	<i>2.80</i>	<i>3.40</i>	<i>3.11</i>	<i>2.88</i>
H04B Cholecystectomy W/O Closed CDE W/O Catastrophic or Severe CC	Public	2.70	2.48	2.08	2.69	2.25	2.28	2.74	3.40
	Private	2.70	2.98	2.55	2.72	2.92	2.61	3.08	n.a.
	<i>Total</i>	<i>2.70</i>	<i>2.66</i>	<i>2.28</i>	<i>2.70</i>	<i>2.49</i>	<i>2.47</i>	<i>2.88</i>	<i>3.40</i>

(a) AR-DRG v 4.1 for New South Wales, Victoria, Australian Capital Territory and the Northern Territory, AR-DRG v 4.0 for Queensland, Western Australia, South Australia and Tasmania. See appendix 4.

(b) Separations for which the type of episode of care was reported as acute, or was not reported, and the length of stay was less than 366 days.

n.a. not available.

Abbreviations: CC — complications and comorbidities, CDE — common bile duct exploration, W/O — without, W — with.